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R = Control efficiency of control device, as specified in paragraph (b)(8)(i), (ii), or (iii) of this section.

(i) If a back-end process vent stream is introduced with the combustion air, or as a secondary fuel into a boiler or process heater with a design capacity less than 44 megawatts, the control efficiency of the boiler or process heater shall be determined using the procedures in paragraph (b)(6)(iii) of this section.

(ii) If a back-end process vent is controlled using a control device specified in paragraph (b)(7) (i), (ii), (iii), or (v) of this section, the control device effi-

ciency shall be assumed to be 98 percent.

(iii) If a back-end process vent is controlled using a control device specified in paragraph (b)(7)(iv) of this section, the control device efficiency shall be the efficiency determined in the previous performance test.

(c) Compliance shall be determined using the procedures in this paragraph.

(1) For each test run, the residual organic HAP content, adjusted for the control or recovery device emission reduction, shall be calculated using Equation 31.

$$HAPCONT_{run} = \frac{(C)(P) - (E_{i,run}) + (E_{o,run})}{(P)}$$
 [Eq. 31]

Where:

HAPCONT_{run} = Residual organic HAP content, kg organic HAP per kg elastomer (latex or dry crumb rubber).

C = Total uncontrolled organic HAP content, determined in accordance with paragraph (b)(3) of this section, kg organic HAP per kg latex or dry crumb rubber.

P = Weight of latex or dry crumb rubber processed during test run.

 ${
m E_{i,run}}={
m Mass}$ rate of total organic HAP at the inlet of the control or recovery device, dry basis, kg per test run.

E_{o,run} = Mass rate of total organic HAP at the outlet of the control or recovery device, dry basis, kg per test run.

(2) A facility is in compliance if the average of the organic HAP contents calculated for all three test runs is below the residual organic HAP limitations in §63.494(a).

(d) An owner or operator complying with the residual organic HAP limitations in §63.494(a) using a control or recovery device, shall redetermine the compliance status through the requirements described in paragraph (b) of this section whenever process changes are made. The owner or operator shall report the results of the redetermination in accordance with §63.499(d). For the purposes of this section, a process change is any action that would reasonably be expected to impair the performance of the control or recovery device. For the purposes of this section,

the production of an elastomer with a residual organic HAP content greater than the residual organic HAP content of the elastomer used in the compliance demonstration constitutes a process change, unless the overall effect of the change is to reduce organic HAP emissions from the source as a whole. Other examples of process changes may include changes in production capacity or production rate, or removal or addition of equipment. For the purposes of this paragraph, process changes do not include: Process upsets; unintentional, temporary process changes; or changes that reduce the residual organic HAP content of the elastomer.

[62 FR 46925, Sept. 5, 1996, as amended at 65 FR 38066, June 19, 2000]

§63.497 Back-end process provisions monitoring provisions for control and recovery devices.

(a) An owner or operator complying with the residual organic HAP limitations in §63.494(a) using control or recovery devices, or a combination of stripping and control or recovery devices, shall install the monitoring equipment specified in paragraphs (a)(1) through (a)(6) of this section, as appropriate.

(1) Where an incinerator is used, a temperature monitoring device

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equipped with a continuous recorder is required.

- (i) Where an incinerator other than a catalytic incinerator is used, the temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.
- (ii) Where a catalytic incinerator is used, the temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.
- (2) Where a flare is used, a device (including, but not limited to, a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting the presence of a pilot flame is required.
- (3) Where a boiler or process heater of less than 44 megawatts design heat input capacity is used, a temperature monitoring device in the firebox equipped with a continuous recorder is required. Any boiler or process heater in which all vent streams are introduced with primary fuel or are used as the primary fuel is exempt from this requirement.
- (4) For an absorber, a scrubbing liquid temperature monitoring device and a specific gravity monitoring device are required, each equipped with a continuous recorder.
- (5) For a condenser, a condenser exit (product side) temperature monitoring device equipped with a continuous recorder is required.
- (6) For a carbon adsorber, an integrating regeneration steam flow, nitrogen flow, or pressure monitoring device having an accuracy of at least ±10 percent of the flow rate, level, or pressure, capable of recording the total regeneration steam flow or nitrogen flow, or pressure (gauge or absolute) for each regeneration cycle; and a carbon bed temperature monitoring device, capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle are required.
- (b) An owner or operator may request approval to monitor parameters other than those required by paragraph (a) of this section. The request shall be submitted according to the procedures specified in §63.506(f) or (g). Approval

shall be requested if the owner or operator:

- (1) Uses a control or recovery device other than those listed in paragraph (a) of this section; or
- (2) Uses one of the control or recovery devices listed in paragraph (a) of this section, but seeks to monitor a parameter other than those specified in paragraph (a) of this section.
- (c) The owner or operator shall establish a level, defined as either a maximum or minimum operating parameter, that indicates proper operation of the control or recovery device for each parameter monitored under paragraphs (a)(1) through (a)(6) of this section. This level is determined in accordance with §63.505. The established level, along with supporting documentation, shall be submitted in the Notification of Compliance Status or the operating permit application, as required in $\S63.506(e)(5)$ or (e)(8), respectively. The owner or operator shall operate control and recovery devices so that the daily average value is above or below the established level, as required, to ensure continued compliance with the standard, except as otherwise stated in this subpart.
- (d) The owner or operator of an affected source with a controlled backend process vent using a vent system that contains bypass lines that could divert a vent stream away from the control or recovery device used to comply with §63.494(a) shall comply with paragraph (d)(1) or (d)(2) of this section. Equipment such as low leg drains, high point bleeds, analyzer vents, openended valves or lines, and pressure relief valves needed for safety purposes are not subject to this paragraph.
- (1) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in §63.498(d)(5)(iii). The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or
- (2) Secure the bypass line valve in the non-diverting position with a carseal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure

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that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line.

[62 FR 46925, Sept. 5, 1996, as amended at 65 FR 38067, June 19, 2000]

§63.498 Back-end process provisions recordkeeping.

- (a) Each owner or operator shall maintain the records specified in paragraphs (b) through (d) of this section, as appropriate.
- (1) The type of elastomer product processed in the back-end operation.
- (2) The type of process (solution process, emulsion process, etc.)
- (3) If the back-end process operation is subject to an emission limitation in §63.494(a), whether compliance will be achieved by stripping technology, or by control or recovery devices.
- (b) Each owner or operator of a backend process operation using stripping technology to comply with an emission limitation in §63.494(a), and demonstrating compliance using the periodic sampling procedures in §63.495(b), shall maintain the records specified in paragraph (b)(1), and in paragraph (b)(2) or (b)(3) of this section, as appropriate.
- (1) Records associated with each sample taken in accordance with §63.495(b). These records shall include the following for each sample:
 - (i) Elastomer type,
- (ii) The date and time the sample was collected,
- (iii) The corresponding quantity of elastomer processed over the time period represented by the sample. Acceptable methods of determining this quantity are production records, measurement of stream characteristics, and engineering calculations.
- (A) For emulsion processes, this quantity shall be the weight of the latex leaving the stripper.
- (B) For solution processes, this quantity shall be the crumb rubber dry weight of the rubber leaving the stripper.
- (iv) The organic HAP content of each sample.
- (2) The monthly weighted average organic HAP content, calculated in accordance with §63.495(f).

- (3) If the organic HAP contents for all samples analyzed during a month are below the appropriate level in §63.494(a), the owner or operator may record that all samples were in accordance with the residual organic HAP limitations in §63.494(a), rather than calculating and recording a monthly weighted average.
- (c) Each owner or operator of a backend process operation using stripping technology to comply with an emission limitation in §63.494(a), and demonstrating compliance using the stripper parameter monitoring procedures in §63.495(c), shall maintain the records specified in paragraphs (c)(1) through (c)(3) of this section.
- (1) Records associated with the initial, and subsequent, determinations of the organic HAP content of each grade of elastomer produced. These records shall include the following:
- (i) An identification of the elastomer type and grade;
- (ii) The results of the residual organic HAP analyses, conducted in accordance with §63.505(e)(1);
- (iii) The stripper monitoring parameters required to be established in §63.495(c)(1).
- (iv) If re-determinations are made of the organic HAP content, and re-establishment of the stripper monitoring parameters, records of the initial determination are no longer required to be maintained.
- (2) Records associated with each grade or batch. These records shall include the following for each grade or batch:
 - (i) Elastomer type and grade;
- (ii) The quantity of elastomer processed:
- (A) For emulsion processes, this quantity shall be the weight of the latex leaving the stripper.
- (B) For solution processes, this quantity shall be the crumb rubber dry weight of the crumb rubber leaving the stripper.
- (iii) The hourly average of all stripper parameter results;
- (iv) If one or more hourly average stripper monitoring parameters is not in accordance with the established levels, the results of the residual organic HAP analysis.